APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,241	12/13/2001	Kevin Lynn Fought	AUS920010863US1	6293

			EXAMINER
7590	03/08/2004		ELMORE, STEPHEN C

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ART UNIT	PAPER NUMBER
2186	3

DATE MAILED: 03/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _13 December 2001_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-19_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-19_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _13 December 2001_ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION-first

1.   Claims 1-19 are presented for examination.

2.   The specification has not been checked to the extent necessary to determine the presence

of all possible minor errors. Applicant's cooperation is requested in correcting any errors of

which applicant may become aware in the specification.

Drawings

3.   The drawings are objected to because in Figure 4, element 412 (described as "logical

volume manager", page 12, line 4-5) is incorrectly labeled in the figure as "Logical Volume".

4.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they

include the following reference sign(s) not mentioned in the description: 500, 502, 504, 554, 508,

520, 570.

A proposed drawing correction, corrected drawings, or amendment to the specification to

add the reference sign(s) in the description, are required in reply to the Office action to avoid

abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

5.   The disclosure is objected to because of the following informalities:

a.   on page 11, line 9, reference character "412" is a typo because the application

layer is supposed to be labeled "400" (see page 11, line 5) -- "412" is "logical volume manager"

(see page 12, lines 4-5);

   b.   page 11, line 10, reference character "430" is a typo because the physical layer is

correctly labeled "420" (see page 11, lines 5-6), not "430";

   c.   page 11, line 25, reference character "412" is elsewhere associated with "logical

volume manager" (see page 12, lines 4-5), but here is called "logical volume" which is another

discrepancy in the specification;

   d.   additionally, and overall, on pages 11 and 12, in view of these above noted errors

the scope of explanation of what is a "logical volume manager" in these teachings has not been

made clear, for example, a "logical volume manager" has been described as element 410, at page

11, lines 13-14, and also as a different element, element 412, at page 12, lines 5-6. It cannot be

both. This confusion in the disclosure requires clarification as to the true scope of the "logical

volume manager" in Figure 4;

   e.   on page 12, line 20, the specification mentions a related patent application which

is incorporated by reference, however, fails to identify the related application's serial number.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
> subject matter which the applicant regards as his invention.

7.   Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention. The claims are indefinite because:

    a.   in claim 1 (lines 15-17), claim 11 (lines 9-11), claim 14 (lines 8-10), and claim 17 (lines 8-10), the language,

"each one of the two incompatibly formatted storage systems being managed by a logical volume manager (LVM)"

       is indefinite because it is not clear whether or not the intended scope of meaning is,

          i)   that there are <u>two</u> logical volume managers with each one managing each of the two incompatibly formatted storage systems,

or

          ii)   whether it means that there is <u>a single</u> logical volume manager managing each of the two incompatibly formatted storage systems;

    b.   Claim 2 recites the limitation "the two LVM's" in line 2. There is insufficient antecedent basis for this limitation in the claim;

    c.   Claim 4 recites the limitation "the other LVM" in line 2. There is insufficient antecedent basis for this limitation in the claim;

    d.   in claims 1, 5, 7, and 11-19, as to the language *"incompatibly formatted storage systems"*, this language is not clear; the term "incompatibility" suggests a state of being incompatible between two elements in some manner or form, however, this language fails to identify what the incompatibly formatted storage system is incompatible with, therefore, the scope of meaning would be indefinite to one of ordinary skill;

    e.   in claims 7, 13, 16 and 19, as to the language *"converting the data into a compatible format"*, this language is not clear; the term "compatible" suggests a state of being compatible between two elements in some manner or form, but this

language fails to identify what the converted data is compatible with, therefore, the

scope of meaning would be indefinite to one of ordinary skill;

> f.   in claim 18, it is not clear whether "data" and "code data" are the same

data or different data;

> g.   claims 3, 6, and 8-10 inherits the deficiencies of the preceding claim in

the claim dependency chain.

Claim Rejections - 35 USC § 102

8.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9.   Claims 1, 2, 5, 7-17 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by

St. Pierre et al., USP 6,269,381.

St. Pierre teaches the claimed apparatus and computer system for, and computer program

product on a computer readable medium for, and method of, storing data into two incompatibly

formatted storage systems, and teaches the claimed apparatus and computer system for, and

computer program product on a computer readable medium for, and method of, reading data

from an incompatibly formatted storage system, (claims 1, 5, 7, 11-17 and 19), taught as a

method and apparatus for copying, transferring, backing up and restoring data in a computer

system using a disk drive storage system (see Fig. 5, element 52 as one type of formatted storage

system) and a tape unit storage system (see Fig. 5, element 54, "backup storage" taught as a tape

unit, see col. 9, lines 18-19, which is inherently another, incompatible type of formatted storage

system) because the formatting of the disk drive storage medium is based on formatting a

physical medium configured into concentric tracks and sectors applicable to a disk medium to

address clusters or blocks of data on the drive while the formatting of the tape unit storage

medium is based on another (different) type of physical medium configured into linear, parallel

tracks divided into segments and blocks which additionally include formatting for CRC for error

correction appended to the blocks, and see Abstract and Summary, comprising:

As to Claim 1, as to the broadly claimed features,

a.   *determining whether the data is to be stored into the two incompatibly formatted*

storage systems and forwarding the data to the two incompatibly formatted storage systems for

storage if so determined, each one of the two incompatibly formatted storage systems being

managed by a logical volume manager (LVM),

these limitations are taught, see col. 9, lines 1-48, as "logical-logical" backup of stored

data as described and as shown in Fig. 5, where the determining step is a prerequisite to the data

storage otherwise there would be no storage of data, and the first storage being managed by a

logical volume manager is taught at lines 31-32 (for the disk drive storage element 52) and the

second storage (to the backup) being managed by another logical volume manager being taught

at lines 39-40;

As to claim 2,

b.   *wherein the determining step is performed by one of the two LVMs,* this limitation

is taught as the determination to whether to perform the mapping function, see col. 2, lines 20-

24, by the logical volume manager as a necessary step in accomplishing the storage of the data to

either the disk storage or the tape storage;

As to Claim 5, as to the features,

c.   *forwarding the data to a first logical volume manager (LVM), the first LVM*

determining whether the data is to be stored into the two incompatibly formatted storage

systems; and forwarding the data to a second LVM for storage if so determined, these limitations

are taught, see col. 9, lines 1-48, as "logical-logical" backup of stored data as described and as

shown in Fig. 5, where the determining and forwarding is a prerequisite to the data storage and

backup otherwise there would be no storage of data, or backup, and the first storage being

managed by a logical volume manager is taught at lines 31-32 (for the disk drive storage element

52) and the second storage (to the backup) being managed by another logical volume manager

being taught at lines 39-40;

As to Claims 7-10, as to the features,

d.   *requesting the data from the incompatibly formatted storage system; converting*

the data into a compatible format; and forwarding the data to be used, wherein the requesting

step is performed by a first logical volume manager (LVM), wherein the request is sent to a

second LVM, and wherein the converting step is performed by the first LVM, these are taught as

retrieving and using the stored data and retrieving and using the backed-up data in the system

shown in Fig. 5, see col. 9, lines 1-48, where the conversion is taught at lines 30 and 37, and

where the reverse process of requesting the stored data also involves the same conversion

activity;

Claim 11, as to the features,

e.   *code means for determining whether the data is to be stored into the two*

incompatibly formatted storage systems; and code means for forwarding the data to the two

incompatibly formatted storage systems for storage if so determined, each one of the two

incompatibly formatted storage systems being managed by a logical volume manager (LVM),

these limitations are taught, see col. 9, lines 1-48, as "logical-logical" backup of stored

data as described and as shown in Fig. 5, where the determining step is a prerequisite to the data

storage otherwise there would be no storage of data, and the first storage being managed by a

logical volume manager is taught at lines 31-32 (for the disk drive storage element 52) and the

second storage (to the backup) being managed by another logical volume manager being taught

at lines 39-40, where the code means is taught as the program instructions stored in the computer

system being processed and acted upon to perform the above activities;

Claim 12, as to the features,

f.   *first code means for forwarding the data to a first logical volume manager (LVM),*

the first LVM determining whether the data is to be stored into the two incompatibly formatted

storage systems; and second code means for forwarding the data to a second LVM for storage if

so determined,

these limitations are taught, see col. 9, lines 1-48, as "logical-logical" backup of stored

data as described and as shown in Fig. 5, where the determining step is a prerequisite to the data

storage otherwise there would be no storage of data, and the first storage being managed by a

logical volume manager is taught at lines 31-32 (for the disk drive storage element 52) and the

second storage (to the backup) being managed by another logical volume manager being taught

at lines 39-40, where the first and second code means are taught as the set of first and second

program instructions stored in the computer system, first and second instructions being processed

and acted upon to perform the above activities;

Claim 13, as to the features,

       g.   *code means for requesting the data from the incompatibly formatted storage*

system; code means for converting the data into a compatible format; and code means for

forwarding the data to be used,

these are taught as retrieving and using the stored data and retrieving and using the

backed-up data in the system shown in Fig. 5, see col. 9, lines 1-48, where the conversion is

taught at lines 30 and 37, and where the reverse process of requesting the stored data also

involves the same conversion activity, and where the code means is taught as the program

instructions stored in the computer system being processed and acted upon to perform the above

activities;

Claim 14, as to the features,

       h.   *means for determining whether the data is to be stored into the two incompatibly*

formatted storage systems; and means for forwarding the data to the two incompatibly formatted

storage systems for storage if so determined, each one of the two incompatibly formatted storage

systems being managed by a logical volume manager (LVM),

these limitations are taught, see col. 9, lines 1-48, as "logical-logical" backup of stored

data as described and as shown in Fig. 5, where the determining step is a prerequisite to the data

storage otherwise there would be no storage of data, and the first storage being managed by a

logical volume manager is taught at lines 31-32 (for the disk drive storage element 52) and the

second storage (to the backup) being managed by another logical volume manager being taught

at lines 39-40;

Claim 15, as to the features,

        i.   *first means for forwarding the data to a first logical volume manager (LVM), the*

first LVM determining whether the data is to be stored into the two incompatibly formatted

storage system and second means for forwarding the data to a second LVM for storage if so

determined,

        these limitations are taught, see col. 9, lines 1-48, as "logical-logical" backup of stored

data as described and as shown in Fig. 5, where the determining and forwarding is a prerequisite

to the data storage and backup otherwise there would be no storage of data, or backup, and the

first storage being managed by a logical volume manager is taught at lines 31-32 (for the disk

drive storage element 52) and the second storage (to the backup) being managed by another

logical volume manager being taught at lines 39-40;

Claim 16, as to the features,

        j.   *means for requesting the data from the incompatibly formatted storage system;*

and means for converting the data into a compatible format; and means for forwarding the data

to be used,

        these are taught as retrieving and using the stored data and retrieving and using the

backed-up data in the system shown in Fig. 5, see col. 9, lines 1-48, where the conversion is

taught at lines 30 and 37, and where the reverse process of requesting the stored data also

involves the same conversion activity;

Claim 17, as to the features,

     k.   *at least one storage device for storing code data; and at least one processor for*

processing the code data to determine whether the data is to be stored into the two incompatibly

formatted storage systems and to forward the data to the two incompatibly formatted storage

systems for storage if so determined, each one of the two incompatibly formatted storage systems

being managed by a logical volume manager (LVM),

these limitations are taught, see col. 9, lines 1-48, as "logical-logical" backup of stored

data as described and as shown in Fig. 5, where the determining step is a prerequisite to the data

storage otherwise there would be no storage of data, and the first storage being managed by a

logical volume manager is taught at lines 31-32 (for the disk drive storage element 52) and the

second storage (to the backup) being managed by another logical volume manager being taught

at lines 39-40, and where the processor is taught as the processor in the client element 50;

Claim 19, as to the features,

     l.   *at least one storage device for storing code data; and at least one processor for*

processing the code data to request the data from the incompatibly formatted storage system, to

convert the data into a compatible format and to forward the data to be used,

these are taught as retrieving and using the stored data and retrieving and using the

backed-up data in the system shown in Fig. 5, see col. 9, lines 1-48, where the conversion is

taught at lines 30 and 37, and where the reverse process of requesting the stored data also

involves the same conversion activity, and where the code means is taught as the program

instructions stored in the computer system being processed and acted upon to perform the above

activities.

Allowable Subject Matter

10.   Claims 3, 4 and 6 would be allowable if rewritten to overcome the rejection(s) under 35

U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations

of the base claim and any intervening claims.

11.   Claim 18 would be allowable if rewritten or amended to overcome the rejection(s) under

35 U.S.C. 112, second paragraph, set forth in this Office action.

Conclusion

12.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

13.   Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Stephen Elmore whose telephone number is (703) 308-6256. The
examiner can normally be reached on Mon-Fri from 7:30-4:00.

      If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Matthew Kim can be reached on (703) 305-3821. The fax phone number for the
organization where this application or proceeding is assigned is 703-872-9306.

      Information regarding the status of an application may be obtained from the Patent
Application Information Retrieval (PAIR) system. Status information for published applications
may be obtained from either Private PAIR or Public PAIR. Status information for unpublished
applications is available through Private PAIR only. For more information about the PAIR
system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR
system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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March 4, 2004